WHAT IS CLAIMED IS:

1. An apparatus for inspecting an array substrate comprising a substrate, a plurality of gate lines provided on the substrate, a plurality of data lines that cross the gate lines, switching elements provided near the intersections of the gate lines and the data lines and connected to the gate lines and data lines, pixel electrodes connected to the switching elements, storage capacitor lines that form storage capacitors by facing a part of each pixel electrode, and gate-electrode capacitors formed between the gate lines and the pixel electrodes, comprising:

first voltage source for applying a first voltage to the switching elements so as to turn on the switching elements when electric charges are accumulated in the storage capacitors and the gate-electrode capacitors; and

second voltage source for applying a second voltage to the switching elements so as to turn on the switching elements when the electric charges accumulated in the storage capacitors and the gate-electrode capacitors are read, said second voltage having a different voltage value than the first voltage.

2. The apparatus according to claim 1, wherein said second voltage is higher than said first voltage.

3. The apparatus according to claim 2, wherein said second voltage is twice as high as said first voltage.

4. The apparatus according to claim 1, further comprising means for applying a voltage to the data lines for accumulating the electric charges when the first voltage is applied.

5. The apparatus according to claim 1, further comprising means for reading the accumulated electric charges when the second voltage is applied.

6. The apparatus according to claim 1, further comprising means for adjusting a voltage applied to the data lines and a voltage applied to the pixel electrodes so that they are different from each other.

7. A method for inspecting an array substrate comprising a substrate, a plurality of gate lines provided on the substrate, a plurality of data lines that cross the gate lines, switching elements provided near the intersections of the gate lines and the data lines and connected to the gate lines and data lines, pixel electrodes connected to the switching elements, storage capacitor lines that form storage capacitors by facing a part of the each pixel electrode, and gate-electrode capacitors formed between the gate lines and the pixel electrodes, comprising the steps of:

applying a first voltage to the switching elements when electric charges are accumulated in the storage capacitors and the gate-electrode capacitors; and

applying a second voltage to the switching elements so as to turn on the switching elements when the electric charges accumulated in the storage capacitors and the gate-electrode capacitors are read, said second voltage having a different voltage value than the first voltage has.

8. The method according to claim 7, wherein said second voltage is higher than said first voltage.

9. The method according to claim 8, wherein said second voltage is twice as high as said first voltage.

10. The method according to claim 7, further comprising the step of applying a voltage for accumulating the electric charges to the data lines concurrently with the step of applying the first voltage.

11. The method according to claim 7, further comprising the step of reading the accumulated electric charges when the second voltage is applied.

12. The method according to claim 7, further comprising the step of adjusting a voltage applied to the data lines and a voltage applied to the gate lines so that they are different from each other.